cians or even medical societies may establish individual person-to-person bridges with medical students, or with interns or residents for that matter. The recipient may be a medical student or young physician known to the donor or one whose name is picked at random. In either case the name and address of the donor and donee will each be made known to the other.

Such bridges, if there are enough of them, will surely lessen the generation gap.

NOTE: To subscribe, see page 338.

Which New Penicillin?

THE PRESCRIBING PHYSICIAN is confronted by an expanding array of penicillin-like antibiotics from which he attempts to choose an agent by criteria that may be difficult to weigh in relation to one another and which in some respects are frankly ephemeral. Hoeprich's review in this issue of CALIFORNIA MEDICINE on the current status of the penicillins is thus most timely.

Having summarized some of the available criteria for basing such a decision and having suggested the best penicillinase-resistant compounds available for oral and parenteral use, he emphasizes that the sole indication for their use is infection with penicillinase-producing *Staphylococcus aureus.* This restriction, legitimate on grounds both of cost and efficacy, is made more pressing by increasing reports in Europe and the United States[1] of the appearance of clinically significant strains of *S. aureus* resistant to these new antibiotics. Such strains can only be spread more rapidly by the selective effects attendant on promiscuous and unwarranted use of the penicillinase-resistant penicillins. However, penicillinase-producing strains of *S. aureus* are not uncommon in the community, and patients with severe staphylococcal infection should receive a penicillinase-resistant penicillin pending sensitivity test results. The antibiotic should be given by the parenteral route—there is no place for oral therapy in severe sepsis.

The availability of ampicillin has ushered in a new therapeutic era of penicillin usage against infections with Gram-negative organisms. Studies *in vitro* of the activity of ampicillin versus penicillin G do not show a very striking advantage for the newer compound, and earlier failures of penicillin G likely were the result of inadequate dosage. With parenteral therapy particularly, the advantages of ampicillin can usually be obtained with higher doses of penicillin G at a lower net cost, for ampicillin costs approximately 13 times as much as penicillin G on a weight basis.

Because of its relative usefulness in Gram-negative infection, ampicillin is sometimes ordered for such diseases acquired in the hospital. These are all too frequently caused by ampicillin-resistant strains of *E. coli* and by species which are universally-resistant such as *Klebsiella, Enterobacter, Pseudomonas aeruginosa, Herellea,* and *Serratia.* The danger of prescribing ampicillin in such situations is exemplified in the review by the patient being treated for H. influenza pneumonia. Ampicillin should not be used in hospital-acquired Gram-negative infection unless the sensitivity of the organism is actually known.

Despite its newness, ampicillin is not resistant to the action of staphylococcal penicillinase, and is generally less efficacious against Gram-positive species than penicillin G, with the posible exception of the enterococcus. Although several studies have found ampicillin to be somewhat more active against the enterococcus than penicillin G, the differences are not pronounced. They could readily be compensated for by administering larger amounts of penicillin G. Occasional reports of bactericidal activity of ampicillin alone do exist, but the example given by the reviewer is not striking, a low activity only being realized *in vivo* after the addition of another antibiotic. Such failure is not remarkable in view of the limited information available on reasons for the effectiveness of combined penicillin G-streptomycin or penicillin G-kanamycin regimens when compared with penicillin alone.[2] In the absence of more than a single published report of cure of enterococcal endocarditis by ampicillin alone[3] or of any controlled observations, the basic treatment for this disease must remain a combination of penicillin G and streptomycin, one of the relatively rare instances where combined antibiotic therapy has in fact been shown to be useful.

As far as is known, the new penicillins are cross-reactive in patients allergic to penicillin G. A history, correct or not, of allergic sensitivity to penicillin not infrequently prevents, or at least delays, the administration of optimal antibiotic treatment

to patients. The need for a safe and reliable means of testing for penicillin hypersensitivity, particularly of the immediate, life-threatening type, remains to be definitively met. In its absence, physicians should be most circumspect in making the diagnosis of allergic sensitivity to penicillin. One type of reaction to procaine penicillin G has recently been identified by Tompsett[4] as a toxicity of inadvertent intravenous administration of procaine rather than allergic response to the antibiotic moiety.

Currently under development are further modifications of the penicillin molecule which will provide activity against pathogens now requiring more toxic drugs. The development of highly specific chemotherapy is the promise of the future—a regimen which will attack the pathogen without altering the normally protective indigenous bacterial flora. Only at that time will we have some hope of breaking the cycle of infection, therapy and superinfection with progressively less treatable organisms, which so frequently characterizes the clinical course of the compromised patient.

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Medicare Today and Tomorrow

MANY, PROBABLY MOST, California physicians opposed the enactment of P.L. 89-97, since known as the Medicare Law. The California Medical Association played an important part in delineating the reasons for the very real concern of the medical profession with what might happen if the King-Anderson Bill were to be passed. It was passed and the long introduction to this great health drama of the 20th century has been concluded. The chronicle of what is to be the outcome has now begun.

James Z. Appel was president of the American Medical Association at the moment when the 89th Congress made its far reaching decision. Quite simply, and with both candor and statesmanship, he called upon the medical profession to roll up its sleeves and to do all in its power to make this new law of the land work, and to make it work well in interest of better patient care. His call was heeded from within the profession and it was recognized from without. Physicians at the highest levels of organized medicine, those in the middle ranks and those on the front lines of patient care put their shoulders to the wheel in good faith. And in parallel good faith, the Social Security Administration worked closely with the medical profession to create a program which would accomplish the aims of the Congress with a minimal disruption of established patterns of patient care. Mercia Kahn, Regional Representative of the Bureau of Health Insurance, Social Security Administration, San Francisco, on page 321 of this issue gives her view from the standpoint of government of what has been accomplished thus far. It is a pertinent contribution to an important chapter in the Medicare story, and it gives every evidence of being a far happier chapter than many could have expected.

But the chronicle is by no means ended. The villains have still really to make their appearance, but they can be glimpsed now and then on the sidelines. Most of them wear dollar signs. At the moment one is threatening the financial stability of some non-profit hospitals who accept Medicare patients by failing to reimburse what appears to be the true reasonable full cost to the hospital of caring for these patients. Another seeks a scapegoat for rising costs, would wrongly blame it all on physicians' fees, and would seek an arbitrary ceiling on this important incentive to good medical care. And to be sure there are villains also among the providers who by their behavior invite this kind of destructive control.

It is to be hoped that as the Medicare story unfolds, the villains will be exposed for what they are and that the chapters now being written and to be written will be able to document a triumphant success for the open, frank and statesmanlike approach which both the medical profession and the government have been using to date. If this is done it will augur well for the success of Medicare, not only today but tomorrow as well.